The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for producing a fluorine-containing synthetic quartz glass article, comprising

a) feeding a silica-forming reactant gas, hydrogen gas, oxygen gas, and optionally, a fluorine compound gas from a burner to a reaction zone,

b) flame hydrolyzing the silica-forming reactant gas in the reaction zone to form fine particles of silica,

c) depositing the silica particles on a rotatable substrate in the reaction zone to form a porous silica matrix,

d) heating to 1,500°C to 1,700°C and vitrifying the porous silica matrix in a fluorine compound gas-containing atmosphere to form a synthetic quartz glass ingot,

e) removing the outer periphery of the ingot in an amount of at least 5% of the outer diameter and the opposite ends of the ingot each in an amount of at least 2.5% of the longitudinal length and at least 5% in total, and

f) heating and molding the ingot into a synthetic quartz glass article.

2. (Previously Presented) The process of claim 1 wherein the ingot has a diameter defining an outer periphery and a length between longitudinal opposite ends and a surface portion defined by the outer periphery and the length between longitudinal opposite ends, and the surface portion of the synthetic quartz glass ingot which is removed is up to 50% of the diameter of the ingot at the outer periphery and up to 50% of the length, in total, at the opposite ends.

3-9. (Cancelled)

10. (Previously Presented) A process of claim 1, comprising d) heating and vitrifying the porous silica matrix in SiF_4, CHF_3, or CF_4 gas-containing atmosphere to form a synthetic quartz glass ingot.

11. (Previously Presented) A process of claim 1, wherein removing the outer periphery of the ingot and the opposite ends of the ingot are each independently accomplished by grinding or cutting or by grinding and cutting.

12. (Previously Presented) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 30% of the diameter of the ingot at the outer periphery.

13. (Previously Presented) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 10% of the diameter of the ingot at the outer periphery.

14. (Previously Presented) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 30% of the length, in total, at the opposite ends.

15. (Previously Presented) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 10% of the length, in total, at the opposite ends.

16. (New) A process of claim 1, comprising d) heating to 1500° C and vitrifying the porous silica matrix.

17. (New) A process of claim 10, comprising d) heating to 1500° C and vitrifying the porous silica matrix.

18. (New) A process of claim 1, comprising d) heating and vitrifying the porous silica matrix in SiF_4 gas-containing atmosphere.

19. (New) A process of claim 17, comprising d) heating and vitrifying the porous silica matrix in SiF_4 gas-containing atmosphere.